

PROGRESS REPORT ON PEACH VARIETIES FOR KENTUCKY

By W. D. Armstrong
Kentucky Agricultural Experiment Station

Variety tests of peaches have been under way for several years at the Western Kentucky Experiment Substation and to a lesser extent at the Experiment Station at Lexington and at the Robinson Substation at Quicksand. Variety testing is a continuous project and this report deals with results obtained to date.

Much of the success of a peach planting depends on the selection of adapted varieties, and much of the progress in peach growing is due to the continuous development of new varieties with superior qualities.

Many growers are interested in trying out new varieties; consequently, the experience obtained from these tests should serve as a valuable guide.

Selection of Varieties. Many varieties are mentioned because they have been tested, as well as a few very promising ones that have not as yet been fruited. Since the lists in catalogs are large, it is felt that it will be helpful to the grower to mention those that are standard, new, and those that should be discarded. However, it has not been possible to include in the tests all the varieties available.

Variety Purpose. Certain plantings require fruit that will ripen over a long period, and several varieties are required. Other plantings, designed to ship to a specific market, require fewer varieties or even just one. During the last 20 years the trend in Kentucky has been toward smaller peach plantings, scattered over the peach sections of the state, with more sales directly to the consumer or to trucks at the orchard or at the roadside market. A number of orchardists now actually invite consumers to "pick their own" peaches from the trees. Thus, there has been a reduction in the quantity of fruit packed and shipped commercially to large markets.

Variety Comment. While Elberta is still the most widely used variety, it is losing popularity. Its chief strong points have been its wide adaptability, strong tree, and large, firm fruit. Its disadvantages are that it frequently has a slightly bitter taste, blooms early, and is tender to cold, both in bud and bloom. Many attempts are under way to create better peaches than Elberta, and some progress is being made. Of the Elberta season, the Redskin is currently one of the likeliest prospects as a general-purpose peach.

With the great number of varieties now available or becoming available, we have a number of varieties for specific purposes. For instance, Golden Jubilee is a so-called self-thinning variety that does not set fruit nearly so heavily as do Redhaven and Halehaven. Consequently, the last two need heavy and early thinning,

KENTUCKY AGRICULTURAL EXPERIMENT STATION

University of Kentucky

Lexington

while Golden Jubilee generally thins itself. Golden Jubilee also has tender fruit that drops quickly from the tree upon becoming mature. However, the variety is of fine quality and is a full free-stone, excellent for local sales, canning, freezing and eating fresh. Hence, for a small planting for local market or home use, the Golden Jubilee is a splendid sort.

There are now a number of very high quality productive, satisfactory kinds such as Golden Jubilee, Sunhigh, Goldeneast, Nectar, Georgia Belle, Laterose, and others that are somewhat soft for best use as shipping varieties but are excellent for home use or local sales.

Tree-Ripe Picking and Increased Consumption. As riper, higher quality peaches have become available, the rate of peach consumption has increased and the demand strengthened. Hence, for more repeat sales and satisfied consumers, varieties should be grown that can be handled when mature ripe, and every effort should be made to see that customers do not get green peaches. Several soft-fleshed varieties of very high quality are also excellent for home fruit planting.

Varieties for Commercial Shipping. Peaches, to enter profitably on the national shipping market, must be of good-to-large size, be free of insect and disease injury, be firm enough to resist serious bruising, be reasonably well colored and be of acceptable quality when they reach the consumer.

Generally, in all but the earliest season shipments, yellow freestone peaches are favored. Some markets, however, will take white peaches. In their order of ripening, some varieties that have been found firm enough for commercial shipping are: Dixired (yellow clingstone), Redhaven, Triogem, Halehaven (losing popularity), July Elberta, Early Elberta (Gleason Elberta), Redskin (with Elberta in season), and Shipper's Late Red.

Door Yard Peach Varieties. The earlier peaches ripen, the less trouble they generally have from insects and diseases; also, the less they have to be sprayed before harvest. Since spraying is often badly neglected in small plantings, early ripening varieties such as Golden Jubilee usually mature more of their fruit than do later maturing varieties such as Halehaven, Elberta, and others. (See ripening chart.)

However, we now have readily available more effective materials for controlling insects and diseases, and equipment for applying those materials is also being improved. Hence, those who will take the time and make the effort to spray their trees according to directions can expect crops reasonably free of insects and diseases, even crops of late-ripening varieties.

Varieties for Home Freezing. The so-called non-browning varieties whose cut flesh does not turn dark upon exposure to air are generally considered more desirable for home quick-freezing. Some non-browning varieties in their order of ripening are: Dixigem, Redhaven, Triogem, Richhaven, and Redskin. Others not classed strictly as non-browning, which freeze better than average are: Golden Jubilee, Sunhigh, July Elberta, and Belle of Georgia. Most other firm-fleshed varieties should make a reasonable frozen product if well matured and processed quickly and carefully.

Varieties for Home Canning. While all varieties can be canned and will be usable, some are considered as making a more superior canned product than others. These are: Redhaven, Dixiegem, Golden Jubilee (sometimes soft), Triogem, Vedette, Fairhaven, July Heath (cl), Ambergem (cl), Belle of Georgia, Early Elberta, J. H. Hale, Shipper's Late Red, and Rio Oso Gem.

Opportunity in Late Ripening Varieties. DDT and Parathion are available now for the control of the Oriental Fruit Moth late in the season. Hence, where adequate care is given, we can now produce peaches that ripen later than Elberta. There is frequently a good demand for peaches ripening 1 to 2 weeks after Elberta, such as Rio Oso Gem, Afterglow, White Hale, Laterose, Frank (cl), Late Elberta, and Lizzie.

Variety Successions. The fruit of one variety usually matures and is picked over a period of 7 to 10 to 14 days, and harvest can be extended farther by varying fertilizer or pruning practices among trees of the same variety. (Trees that are vigorous from heavy pruning or from heavy nitrogen fertilization do not ripen their fruit so early as non-pruned or non-fertilized, non-vigorous trees.) Hence, for a steady succession of fruit, varieties should be selected that follow each other by about 10 days or 1-1/2 weeks. This succession of ripening is very important where a continuous supply of fruit is needed for a roadside market, continuing orchard or market sales, or for extended fresh use at home.

Winter Hardy Varieties. Following several cold winters, Halehaven and Belle of Georgia have had partial crops when Elberta trees in the same planting had all of their fruit buds killed, hence no crop. Some other varieties that have proved to be quite hardy under Kentucky conditions have been Alton, Raritan Rose, Cumberland, Vedette, Viceroy, South Haven, and Ambergem. Also, varieties that are late in blooming such as Marigold, Raritan Rose, Cumberland, Veteran and Ambergem frequently blossom after late damaging frosts and escape injury when early blooming varieties such as Elberta and Halehaven are badly damaged. The hardier varieties are especially advantageous in the colder parts of the state and on locations and sites that are inclined to be cold and frosty.

Table I. - Peach Varieties Grouped by Season of Ripening in Weeks Before or After Elberta. Also, Divided into Groups that are Proven (Kentucky standard varieties); Promising, Very New Varieties; Others of Same Season, and Those on Decline, Being Discarded or not Recommended.

* Unless otherwise indicated, all varieties are yellow-fleshed freestones.

(W) indicates white flesh - (cl) indicates clingstone - (semi) indicated semi-clingstone or semi-freestone.

Season: Weeks before or after Elberta	Considered standard varieties for Kentucky	Partially proven, adapted varieties	Very new, promising varieties, not yet fruited in Kentucky, but planted	Some others, value still in doubt	Varieties on decline not now recommen- ed. (Others listed are better)
8 - before	Mayflower (w) (cl)				
6 1/2 - before		Cardinal (cl)	Maybelle (W)(semi)	Hiland (short chilling) Tulip (semi)	Mikado (June Elber- ta)
6 - before	Dixired (cl)		Sunrise		
5 to 5 1/2 before	Erly Red Fre (W) (semi)		Sunhaven	Starking De- licious	Red Bird (W) (cl) (brown rot and low quality) Marigold (soft, semi) Early Rose (W) (cl)
4 1/2 before		Early Triogem	Coronet	Dixigem Prairie Dawn	Jerseyland (Dark, tender)
4 before	Redhaven Raritan Rose (W)		Missouri	Prairie Sunrise	Fisher (soft)
3 1/2 before	Golden Jubilee	Cumberland (W)	Ranger	Prairie Daybreak	
3 before	Triogem		Keystone	Fairhaven	Fair Beauty Carman Newday Golden Globe
2 1/2 before		Nectar (W) Vedette (soft) Prairie Rose	Redglobe Richhaven	Wildrose (W)	Southland Golden Beauty Fireglow Alton (W)

2 before	Halehaven July Elberta July Heath (cl) (W) Ambergem (cl)	Valiant Sunhigh			Mamie Ross (W) (semi) Viceroy (hardy, but soft) South Haven (fruit cracks, rots) Eclipse
1 1/2 before		Goldeneast Veteran (hardy, but soft)	Ozark Stoner (W) Loring	Prairie Schooler Redrose (W)	Hiley (W)
1 before		Summercrest	Poppy		Sullivan Early- Elberta (drops badly) also B. pruni spot) Redelberta (too small)
1/2 before	Belle of Georgia (W) (drops badly) Early Elberta	Halehaven			
With Elberta (in W. Ky., early August) (in central Ky., about mid-August)	Elberta	Redskin Golden Sweet Cling (cl)	H. H. Brilliant	Golden Gem	
1/2 after	Shippers Late Red (various strains)		Vesper	Gage	J. H. Hale (many faults) Halberta Giant
1 after	Rio Oso Gem (runty tree)	White Hale (W)		Afterglow (B. pruni spot)	
1 1/2 after		Laterose (W)		Frank (cl)	Wilma
2 after	Lizzie		Autumn	Late Elberta Barbara	Augbert